

REMARKS AND ARGUMENTS

Claim Rejections - 35 USC § 102

The Examiner has rejected claims 13-19, 33-34 and 36-38 under 35 U.S.C. 102(b) as being anticipated by US 6329224 to Nguyen (hereafter "Nguyen"). Applicants have carefully studied the reference and the Examiner's comments. However, Applicants respectfully disagree with the Examiner's analysis of the prior art when compared with Applicants' claims.

The Examiner states that Nguyen teaches all of the limitations of claims 13, 33 and 38, all of which are independent claims. Claim 38 has been amended to better describe the subject matter therein and is addressed separately below.

Applicants' claims 13 and 33 both require "providing a mold with a formation cavity for holding a plurality of semiconductor devices, said formation cavity at least partially defined by opposing upper and lower sections." Each of the claims further require "mounting a plurality of devices within said mold formation cavity to at least one of said upper and lower sections." Finally, each of the claims requires that the semiconductor devices are cured or otherwise treated and then removed from the formation cavity afterwards. Applicants submit that Nguyen does not teach all of these limitations.

Nguyen teaches a method for encapsulating microelectronic assemblies. Using this method, the microelectronic assemblies are mounted to a tape 86 and then covered by a cover layer 110 which are disposed in a number of disposable frames 72. The disposable frames 72 are located between top and bottom fixture elements 20, 22. The fixture elements 20, 22 engage to define a

cavity. After the assemblies are encapsulated the entire frame 72 is removed from the fixtures 20, 22 and then treated in a curing oven. (See Nguyen: col. 10, lines 15-33). The frames 72 are then discarded or may be retained as part of the finished product. (See Nguyen: col. 14, lines 23-37). The microelectronic assemblies are mounted to the tape 86 inside the frames 72; they are not mounted to either of the fixture elements 20, 22. However, Applicants claims 13, 33 and 38 all require that the devices are mounted directly to the one of the upper or lower sections that define the formation cavity. The specification states that this may be done with an adhesive as shown in FIG.3 of the application.

Furthermore, as stated above, Applicants' claims teach curing or otherwise treating the devices while they are still mounted inside the formation cavity where the encapsulating material is introduced and then removing the devices after treatment. Whereas Nguyen teaches removing the frames and the microelectronic assemblies from the cavity formed by the fixture elements after the encapsulating material is injected but before the assemblies are heat treated.

Claim 38 has been amended. The claim discloses "a method for coating a plurality of semiconductor *chips*" (emphasis added). The claim was amended to be more specific as to the kind of semiconductor devices that the process is intended treat. Nguyen teaches a process for encapsulating microelectronic assemblies. Applicants' claims address a process for treating semiconductor chips that may ultimately be incorporated as a part of a microelectronic assembly. However, different factors must be considered when treating semiconductor chips at the pre-assembly level. Because Nguyen does not address coating semiconductor chips, the reference fails to teach all of the limitations of Applicants' claim 38.

Thus, Applicants' methods as disclosed in claims 13, 33 and 38 reduce the number of steps and parts needed to process the devices, simplifying the process and minimizing cost. Because Nguyen does not teach all of the limitations of claims 13, 33 and 38, these claims are not anticipated by the cited reference.

Claims 14-19 depend from allowable claim 13 and, as such, are also allowable for at least the same reasons as claim 13. Claims 34, 36 and 37 depend from allowable claim 33 and, as such, are also allowable for at least the same reasons as claim 33.

Claim Rejections - 35 USC § 103

The Examiner has rejected claim 35 under 35 U.S.C. 103(a) as being unpatentable over Nguyen in view of US 6252254 to Soules et al.

Applicants note that claim 35 depends from allowable claim 33 and is therefore also allowable for at least the same reasons as claim 33.

New Claims

Applicants have added new claims 39-41 that depend from allowable claim 38. Applicants submit that these claims do not contain new matter. Support for the claims can be found in the specification as originally filed. (See Application: pp.14-16).

CONCLUSION

Applicants submit that claims 13-19 and 33-41 are in condition for allowance, and Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,



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